# solid state communications

an international journal volume 79



Pergamon Press
Oxford · New York · Seoul · Tokyo

# SOLID STATE COMMUNICATIONS **EDITOR-IN-CHIEF, ELIAS BURSTEIN**

ASSOCIATE EDITOR-IN-CHIEF, MANUEL CARDONA

### EDITORIAL POLICY COMMITTEE P. AIGRAIN. Chairman

J. A. KRUMHANSI. P. G. DE GENNES

W. M. LOMER

S. LUNDQVIST

H. SUHL

Y. TOYOZAWA

### BOARD OF EDITORS

V. M. AGRANOVICH, Moscow

S. ALEXANDER, Rehovot M. BALKANSKI, Paris

I. BALSLEV, Odense R. BARRIE, Vancouver

P. BURLET, Grenoble G. BURNS, New York (Deputy Editor-in-Chief) M. F. COLLINS, Hamilton C. CALANDRA, Trieste P. H. DEDERICHS, Jülich

A. L. Efros, Leningrad G. FASOL, Cambridge

R. FIESCHI, Parma

Z. GAN, Beijing
C. E. T. GONÇALVES DA SILVA, Campinas

M. GRYNBERG, Warsaw G. GUNTHERODT, Aachen

. JOFFRIN, Paris H. KAMIMURA, Tokyo

L. V. KELDYSH, Moscow

W. Y. KUAN, Beijing B. LUNDQVIST, Göteborg A. H. MACDONALD, Bloomington

A. A. MARADUDIN, Irvine T. P. MARTIN, Stuttgart

E. MOLINARI, Rome B. MÜHLSCHLEGEL, Köln

A. OKUL Osaka A. PINCZUK, New Jersey
C. N. R. RAO, Bangalore R. H. SILSBEE, Ithaca

J. TAUC, Providence
T. TSUZUKI, Sendai
D. VAN DYCK, Antwerp
P. WACHTER, Zürich F. YNDURAIN. Madrid

A. ZAWADOWSKI, Budapest

Institute of Spectroscopy of the Academy of Sciences, U.S.S.R. Academgorodok, Podolski r-n, Moscow obl. 142092, U.S.S.R.
Department of Chemical Physics, Weizmann Institute of Science, Rehovot 76100, Israel

Laboratoire de Physique des Solides, Université Pierre et Marie Curie, 4, Place Jussieu, Tour 13 - 2e Etage, 75230 Paris Cedex 05, France
Fysisk Institut, Odense Universitet, DK-5230 Odense M, Denmark
Department of Physics, University of British Columbia, Vancouver 8, British Columbia, Canada

Centre d'Etudes Nucléaires, DRF/SPh-MDN, 85x, 38041 Grenoble Cedex, France I.B.M., T. J. Watson Research Center, P.O. Box 218, Yorktown Heights, New York 10598, U.S.A.

Department of Physics, McMaster University, Hamilton, Ontario, Canada L8S 4M1 Laboratorio TASC-INFM, Padriciano, 99, 34012 Trieste, Italy

Institut für Festkörperforschung der Kernforschungsanlage Jülich GmbH, 5170 Jülich 1- Postfach 1913, Federal Republic of Germany

(On leave) Hitachi Cambridge Laboratory, c/o Cavendish Laboratory, Madingley Road, Cambridge CB3 0HE, II.K.

Istituto di Fisica, Università degli Studi, 43100 Parma, Italy Department of Physics, Peking University, Beijing 100871, People's Republic of China Laboratoire Nacional de Luz Sincrotron/CNPq/MCT, Caixa Postal 6192, Campinas 13081 SP, Brazil

Institute of Experimental Physics, University of Warsaw, 00-681 Warsaw, ul.Hoza 69, Poland II. Physikalisches Institut, RWTH Aachen, Templergraben 55, D-5100 Aachen, Federal Republic of Germany

Université Paris-Sud, Batiment 510, 91405 Orsay, France The Science University of Tokyo, Department of Applied Physics, Faculty of Science, 1-3 Kagurazaka, Shinjuku-ku, Tokyo 162, Japan P. N. Lebedev Institute, Academy of Sciences of the U.S.S.R. Leninskii Prospect 53, 117924 Moscow, U.S.S.R.

(On leave)

ton leave) Institute of Theoretical Physics, Chalmers University of Technology, S-412 96 Göteborg, Sweden Department of Physics, Indiana University, Bloomington, Indiana 47405, U.S.A. Department of Physics, University of California, Irvine, California 92717, U.S.A. Max-Planck-Institut für Festkörperforschung, Heisenbergstrasse 1, 7000 Stuttgart 80, Federal Republic

of Germany

CNR Istituto "Corbino", Via Cassia 1216, 00189 Rome, Italy Institut für Theoretische Physik, Universität zu Köln, Zulpicher Str. 77, D-5000 Köln 41, Federal Republic of Germany

Department of Applied Physics, Faculty of Engineering, Osaka University, Suita, Osaka 565, Japan Room 1D - 433, AT&T Bell Laboratories, Murray Hill, New Jersey 07974, U.S.A. Indian Institute of Science, Bangalore 560012, India

Laboratory of Atomic and Solid State Physics, Cornell University, Ithaca, New York 14853, U.S.A.

Box D, Division of Engineering, Brown University, Providence, Rhode Island 02912, U.S.A. Department of Physics, Faculty of Science, Tohoku University, Aoba-ku, Sendai 980, Japan University of Antwerp (RUCA), Groenenborgerlaan 171, B-2020 Antwerp, Belgium Laboratorium für Festkörperphysik der ETH, CH-8093 Zürich, Honggerberg, Switzerland Dpt de Fisica de la Materia Condensada, C-III, Universidad Autónoma de Madrid, Cantoblanco, 18940 Medick Spain

28049-Madrid, Spain Institute of Theoretical Physics, Eötvös Loránd University, H-1088 Budapest, Puskin Utca 5-7, Hungary

### PRODUCTION EDITOR

M. R. JAKEMAN, Production Department, Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, U.K.

SOLID STATE COMMUNICATIONS is a companion journal to THE JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS.

Publishing and Advertising Offices: Pergamon Press Inc., 395 Saw Mill River Road, Elmsford, NY 10523, U.S.A.; Pergamon Press pic, Headington Hill Hall, Oxford OX3 0BW, U.K. Tel., Oxford (0865) 60285.

Subscription enquiries from customers in North America should be sent to: Pergamon Press Inc., 395 Saw Mill River Road, Elmsford, NY 10523, U.S.A. and for the remainder of the world to: Pergamon Press pic, Headington Hill Hall, Oxford OX3 0BW, U.K. Annual institutional subscription rate (1992); £915.00 (US\$1465.00). Two-year institutional rate (1992/93): £1738.00 (US\$2783.50). Sterling prices are definitive. US dollar prices are quoted for convenience only, and are subject to exchange rate fluctuation. Prices include postage and insurance and are subject to change without notice. Subscription rates for Japan are available on request.

Published: 48 issues per annum.

Back Issues: Back issues of all previously published volumes, in both hard copy and on microform, are available direct from Pergamon Press offices.

Copyright © 1991 Pergamon Press plc

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. However, assignment of copyright is not required from authors who work for organisations which do not permit such assignment. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means: electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise without permission in writing from the copyright holder.

U.S. Copyright Law Applicable to Users in the U.S.A.

U.S. Copyright Law Applicable to Users in the U.S.A.

U.S. Copyright Law Applicable to Users in the U.S.A.

U.S. Copyright Law Applicable to Users in the U.S.A.

The Item-fee Code for this publication indicates that authorization to photocopy items for internal or personal use is granted by the copyright holder for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service provided the stated fee for copying, beyond that permitted by Section 107 or 108 of the United States Copyright Law, is paid. The appropriate remittance of \$3.00 per copy per article is paid directly to the Copyright Clearance Center Inc., 27 Congress Street, Salem, MA 01970.

The Item-Fee Code for this publication is: 0038 - 1098/91 \$3.00 + .00

Disclaimer. Whilst every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinion or statement appear in this journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the sole responsibility of the contributor or advertiser concerned. Accordingly, the publishers, the editorial board and editors and their respective employees, officers and agents accept no responsibility or liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or

Permission for other use. The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying.

TMThe text paper used in this publication meets the minimum requirements of American National Standard for Information Sciences—Permanence of Paper for Printed Library Materials, ANSI 239.48-1984.

# CONTENTS

JULY

**VOLUME 79. NUMBER 1** 

1991

### General Papers L. Vel and G. Demazeau 1 Nucleation and growth of cubic BN crystals in the presence of $Ca_3B_2N_4 + x$ LiF as flux-precursor P. R. Bote, P. K. Patil, J. K. Nandgave and 5 Cubic-hexagonal phase transformation in ZnS:Mn:Cu(C1) R. D. Lawangar-Pawar phosphors 9 The quantum tunneling-localization transition of the ground T. Tsuzuki state of a spin-boson system M. N. Piancastelli, R. Zanoni, M. Marsi and 13 Chemisorption and physisorption of simple alcohols on cleaved silicon G. Margaritondo L. C. Andreani and H. Beck 17 A zero-temperature variational study of the two-impurity Anderson model J. P. Nozières and H. R. Rechenberg 21 Magnetic properties of Nd<sub>3</sub>Fe<sub>17</sub> E. Nogueira Jr and A. S. Carrico 25 Vibrational spectrum of vicinal surfaces B. Drittler, M. Weinert, R. Zeller and 31 Vacancy formation energies of fcc transition metals calculated P. H. Dederichs by a full potential Green's function method Superconductors and Superconductivity S. I. Frolov, V. G. Litovchenko, 39 Optical constants spectra for single crystal Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8+x</sub> M. A. Tanatar, V. S. Yefanov, V. V. Dyakin, with different stoichiometry A. P. Motliakh, S. V. Moshkin and

M. A. Kuz'mina

R. S. Liu, J. D. Johnson, P. P. Edwards and

A. M. Campbell

M. Sohma and K. Kawaguchi

Guo-qing Zheng, E. Yanase, K. Ishida, Y. Kitaoka, K. Asayama, Y. Kodama,

R. Tanaka, S. Nakamichi and S. Endo

B. Andraka, C. S. Jee, J. S. Kim,

G. R. Stewart, K. D. Carlson, H. H. Wang,

A. V. S. Crouch, A. M. Kini and

J. M. Williams

L. Kan, S. Elschner and B. Elschner

43 Magnetisation and intragrain critical current density of monophasic Tl, Ba2Ca22Cu3O10-d

47 Preparation of CuO films and the magnetic properties

51 NQR investigation of high  $T_c$  superconductors under pressure

57 Specific heat of the high  $T_c$  organic superconductor  $\kappa$ -(ET)<sub>2</sub>

Cu[N(CN)2]Br

61 ESR investigation of superconductor-to-metal transition in La2-x-, Er, Sr, CuO4-6

### General Papers (contd)

C. M. Chittaranjan, V. Kumar, B. Viswanathan 69 Mössbauer study of Al, Fe, and K. P. Gopinathan

# Vol. 79, Nos. 1-12 Contents

VOI. 13,	Nos. 1-12 Contents
	Chemical substitution effect on Yb valence in the surface region of $Yb_{1-x}M_xAl_2(M=Sc,Ca)$ : a photoemission investigation
81	The infrared absorption line shape of molecules adsorbed on a metal surface
85	Evidence for direct impact-excitation of luminescent rare-earth centers ( ${\rm Ho^{3-}}$ and ${\rm Sm^{3-}}$ ) in semiconducting zinc oxide
89	Non-linear effects in the easy-plane one-dimensional antiferromagnet in a staggered field
93	Dielectric properties of porous cement mortar: fractal surface effects
97	An "inverse" glassy-state in oxygen octahedra crystals
101	Overlayer states for Na on Si(100)
i	Errata
iii	Instructions for Authors on the Preparation of Camera-Ready Manuscripts for <i>Solid State Communications</i>
VOLUM	E 79, NUMBER 2 1991
105	Optimization of the coating and sintering conditions for the deposition of $(Zn,Cd)S$ : Cu films
109	Nuclear spin-lattice relaxation in silicon with one-dimensional defects
113	Effect of hydrogen on the electronic structure of a grain boundary in iron
119	Oxygen interaction with defects at the Si/SiO <sub>2</sub> interface
n, 121	Relativistic effects on the structural and magnetic properties of iron
125	Optical conductivity of the Anderson impurity model
lona 131	Optical emission of exciton - phonon quasiparticles in InP
137	Relationship between strained silicon – oxygen bonds and radiation induced paramagnetic point defects in silicon dioxide
143	Clarification of the direct-force controversy in electro- migration theory
14	On Sorbello's corrections to the new electromigration theory
15	Pseudo-three dimensional model of oxygen ordering in $YBa_2Cu_3O_{6+\delta}$
	75 e and 81 85 89 93 97 101 i iii VOLUMI 105 109 113 119 n, 121 137 143 144

155 Superconductivity and low-temperature structural phase transition in  $La_{1.98-x}Ce_{0.02}Ba_xCuO_4$ 

Y. Koike, T. Kawaguchi, N. Watanabe, T. Noji and Y. Saito

## General Papers (contd)

- G. A. Northrop, D. J. Wolford and S. S. Iyer
- M. Kahrizi, S. K. Misra, J. Kotlinski, M. O. Steinitz and T. Smith-Palmer
- Yang-Fang Chen, Si-Chen Lee and Ji-Hong Chen
- M. Tomellini
- G. Cappellini and R. Del Sole
- P. O. Nilsson and S. P. Svensson
- R. Caciuffo, G. Amoretti, J. M. Fournier, A. Blaise, R. Osborn, A. D. Taylor,
- J. Larroque and M. T. Hutchings

# JULY

161 Radiative recombination in MBE-prepared epitaxial Si and Si<sub>1-x</sub>Ge<sub>x</sub> layers

- 167 Mn²+ EPR study of phase transitions occurring in single crystals of  $[N(CH_3)_4]_2ZnCl_4$ ,  $[N(CH_3)_4]_2ZnBr_4$ ,  $[N(CH_3)_4]_2ZnBr_4$ ,  $[N(C_2H_3)_4]_2ZnBr_4$ ,  $[N(C_2H_3)_4]_2ZnBr_4$  and  $[N(C_2H_3)_4]_2MnBr_4$
- 175 Existence of a universal low-energy tail in the photoluminescence of a-SiC: H alloys
- 179 Double scattering contributions in EELS—III. Evaluation of the EELFS amplitudes in backscattering geometry
- 185 Estimate of image-potential perturbation on the normal inverse and direct photoemission yields
- 191 The phosphorus Auger L2.3VV spectrum of InP(1 1 0)
- 197 Evidence of a lattice distortion in NpO<sub>2</sub> below 25 K from neutron magnetic inelastic scattering

### **VOLUME 79, NUMBER 3**

### 1991

### **General Papers**

- R. Coluzzi, A. Scacco, F. Somma, G. Baldacchini, E. Ciaramella,
- R. M. Montereali and O. Pilla
- S. S. Chao, D. A. Pawlik, J. González-Hernández, Qi Wang and D. D. Allred
- C. A. Achilleos, I. M. Kyprianidis and I. A. Tsoukalas
- .Ch. Aron, P. Auric and C. Jeandey
- H. D. Fuchs, D. J. Mowbray, M. Cardona, S. A. Chalmers and A. C. Gossard
- O. B. Tsiok, V. A. Sidorov, V. V. Bredikhin, L. G. Khvostantsev, A. V. Golubkov and I. A. Smirnov
- M. I. Klinger and S. N. Taraskin

- 201 Zero-phonon lines in the R<sub>2</sub> absorption of F<sub>3</sub> centres in KF
- 205 The effect of oxygen on the structure of annealed W/C multilayer thin films
- 209 On the magnetic properties and  $\alpha \leftrightarrow \gamma$  transformation of some Fe Co Ni ternary alloys
- 217 Magnetic properties of sputtered amorphous Fe<sub>x</sub>Si<sub>100-x</sub>/Si multilayers
- 223 Interface phonons in short-period GaAs/AlAs superlattices: wave vector-selective and defect-activated
- 227 Compressibility and electronic transport properties of SmSe and SmTe at the pressure induced valence transition
- 231 The role of interband interactions in formation of mobility gap negative-U states in glassy semiconductors

### Superconductors and Superconductivity

- Kiejin Lee, B. K. Jeon, Gwangseo Park, Pansup Song and Seung Pyung Choi
- R. Janes, K. K. Singh, S. D. Burnside and P. P. Edwards
- Chang-qing Xu, T. Kondo, H. Sakakura, K. Kumata, Y. Takahashi and R. Ito
- Chang-qing Xu, H. Sakakura, T. Kondo, S. Takeyama, N. Miura, Y. Takahashi,
- 237 Study of Y<sub>1</sub>Ba<sub>2</sub>Cu<sub>3-x</sub>Sb<sub>x</sub>O<sub>y</sub> superconductors
- 241 On the absence of EPR in cuprate superconductors and their antiferromagnetic antecedents
- 245 Optical third-harmonic genera\*ion in layered perovskite-type material (C<sub>10</sub>H<sub>21</sub>NH<sub>3</sub>)<sub>2</sub>PbI<sub>4</sub>
- 249 Magneto-optical effects of excitons in (C<sub>10</sub>H<sub>21</sub>NH<sub>3</sub>)<sub>2</sub>PbI<sub>4</sub> under high magnetic fields up to 40 T

- K. Kumata and R. Ito
- M. Ohkubo and T. Hioki
- A. Nishida, K. Shiiyama, T. Fujita, H. Shibayama, K. Iwahashi and K. Horai
- N. A. Fortune, K. Murata, M. Ishibashi, M. Tokumoto, N. Kinoshita and H. Anzai
- 255 Over-hole-doping state of YBa2Cu3O27 superconductor
- 259 Scaling behavior in the irreversibility of Tl<sub>2</sub>Ba<sub>2</sub>Ca<sub>2</sub>Cu<sub>3</sub>O<sub>10</sub> superconductors investigated through microwave absorption
- 265 Calorimetric observation of the metal-insulator phase transition in a-(BEDT-TTF)2I3

### General Papers (contd)

- Ze-Nong Ding, Yu Xia, Li-Bin Lin, Hao Che and Xin-Chuan Zeng
- Y. Satyanarayana Murty, S. Uthanna, B. Srinivasulu Naidu and P. Jayarama Reddy
- 273 Spin wave spectra of two-sublattice Heisenberg ferrimagnetic thin films
- 277 Photoconductive response of polycrystalline p-AgGaSe, thin films

JULY

**VOLUME 79, NUMBER 4** 

1991

### **General Papers**

- M. Onoda, H. Ohta and H. Nagasawa
- A. R. Mkrtchyan, H. A. Aslanyan,
- A. H. Mkrtchian, R. H. Gasparian,
- A. Kh. Mkhitarian, G. M. Garibian,
- R. H. Avakian, S. P. Taroyan,
- A. E. Avetisyan, H. S. Kisogyan,
- K. R. Dallakyan, V. A. Gyurdzhyan,
- S. S. Danagulyan, G. M. Elbakyan and Ye. M. Boyakhchyan
- K. K. Chopra and D. Kitous
- R. Vila, A. Ibarra, M. Jiménez de Castro and F. W. Clinard
- G. Boureau, O. Masmoudi and R. Tetot
- J. P. Nawrocki and V. Y. Young
- H. Guyot, E. Al Khoury, J. Marcus, C. Schlenker, M. Banville and S. Jandl
- V. P. Plakhty
- G. A. Petrakovskii, K. A. Sablina,
- A. M. Vorotinov, V. N. Vasiliev,
- A. I. Kruglik, A. D. Balaev,
- D. A. Velikanov and
- N. I. Kiselev

- 281 Metallic properties of perovskite oxide SrVO,
- 287 Experimental observation of quasiCerenkov radiation in the quartz single crystal
- 289 Lattice dynamics of copper and silver
- 295 Thermally stimulated depolarization currents in neutron irradiated Al<sub>2</sub>O<sub>3</sub>
- 299 Electrical conductivity in nonstoichiometric cerium dioxide
- 303 Electronic structure of color center aggregates in potassium chloride
- 307 Infrared reflectivity studies on quasi-two dimensional molybdenum oxides Mo<sub>4</sub>O<sub>11</sub>
- 313 On the origin of weak antiferromagnetism in CuCl<sub>2</sub>2D<sub>2</sub>O
- 317 Magnetic, resonance, and electrical properties of single crystal and amorphous Bi2CuO4

# Superconductors and Superconductivity

- R. E. Lagos
- A. E. Karakozov, E. G. Maksimov and A. A. Mikhailovsky
- H. Tajima, T. Naito, M. Tamura,
- 323 A theory for high temperature superconductivity: application to tunneling conductance
- 329 The investigation of Eliashberg equations for superconductors with strong electron - phonon interaction
- 337 Energy level inversion in strongly dimerized [Pd(dmit)<sub>2</sub>] salts

VOI. 1	, 111	of 1 12 Contours
A. Kobayashi, H. Kuroda, R. Kato, H. Kobayashi, R. A. Clark and A. E. Underhill		
M. Acquarone	343	Is the electronic phase separated state realized in the metallic state of the system $(V_{1-x}M_x)_2O_3$ $(M = Ti,Cr)$ ?
Y. Tanaka, H. Yamagami and M. Tsukada	349	Distribution of quasiparticles in the $S-N-S$ junction
B. Szymanik and A. Edgar	355	Electrical conductivity of BaRuO <sub>3</sub> ceramics
K. F. McCarty, J. Z. Liu, Y. X. Jia, R. N. Shelton and H. B. Radousky	359	Effect of gold-doping on the energy gap of $YBa_2Cu_3O_7$ as determined by Raman scattering
C. Ramakrishnan and N. Krishnamurthy	363	The elastic constants of $YBa_2Cu_3O_{7-6}$
M. Takashima, M. Amaya, T. Sasaki, T. Unishi, A. Sumiyama and Y. Oda	371	Improvement of superconductivity of oxygen deficient $YBa_2Cu_3O_{7-d}$ by $C1F_3$ treatment
T. G. N. Babu, F. J. Berry and C. Greaves	375	The erroneous description of a high temperature superconductor of composition $Sn_2Ba_2Sr_{0.5}Y_{0.5}Cu_3O_x$
General Papers (contd) L. Braicovich, F. Ciccacci, E. Puppin, M. Sancrotti, E. Vescovo and G. Bertuccio	379	Ultraviolet inverse photoemission spectroscopy from YFe <sub>2</sub>
P. Vajda, J. N. Daou, P. Moser and P. Rémy	383	Hydrogen relaxation in yttrium
K. Esfarjani and S. T. Chui	387	Shear modulus of the magnetophonon wave function
	i	i Author Index Nes 1 – 4
AUGUST VO	LUM	E 79, NUMBER 5 1991
General Papers M. Bouhki, A. Bruson and P. Guilmin	389	Interdiffusion and amorphization in Ni/Ti multilayers
R. S. Lima, P. H. Dionisio, W. H. Schreiner and C. Achete	395	Magnetron sputtered tin nitride
L. N. Pandey, T. F. George and D. Sahu	399	Width anomaly in resonant tunneling structures
P. Guéret	403	Is the momentum of a tunneling electron real or imaginary? An alternative description of the tunneling process
Superconductors and Superconductivity T. Staufer, R. Hackl and P. Müller	409	Some new aspects of the electronic response in Cu-O superconductors
WM. Hurng, S. F. Wu, C. Y. Shei, Y. T. Huang, C. Chiang, H. S. Koo, W. H. Lee and P. T. Wu	413	Formation of $(Tl,Pb,Bi)Sr_{1.6}Ca_{2.4}Cu_3O_5$ superconducting phase with $T_c = 105$ K by nitrates conversion
I. Boonpikum and S. Yoksan	417	Cooper pairing in oxide superconductors
R. Jayavel, P. Murugakoothan, C. R. Venkateswara Rao, C. Subramanian P. Ramasamy, A. Chakravarti, R. Ranganathan and A. K. Raychaudhuri	421	Preparation and characterisation of BiSrCaCuO through glassy route

# General Papers (contd)

- M. Khodja and M. Mostefa
- P. D. Emmel and I. C. da Cunha Lima
- J. Beauvais, E. Fortin, L. Kulyuk and V. E. Tezlevan
- G. Slavcheva and I. Yanchev
- H. Araki, R. Matsuoka and K. Yoshino
- J. Himmrich and H. D. Lutz
- S. Masuda, H. Ishii and Y. Harada
- X. J. Chen and F. Toigo

- 427 Thermopower behaviour in metal insulator composites
- 431 Effect of compensation on the absorption coefficient for shallow donors in a quantum well
- 435 Photoluminescence kinetics in Cr-doped CdIn<sub>2</sub>S<sub>4</sub>
- 439 Potential fluctuations due to the randomly distributed charges at the semiconductor insulator interface in MIS-structures
- 443 Ferromagnetic behavior of pyrolyzed *o,m,p*-phenylene-diamine and triazine derivatives
- 447 Normal coordinate analyses and lattice dynamical calculations of spinel-type ZnCr<sub>2</sub>O<sub>4</sub>
- 453 Metastable atom electron spectroscopy of potassium-adsorbed Si(0 0 1)-2  $\times$  1 surface
- 457 Non-local corrections in density functional theory

# AUGUST

### **VOLUME 79, NUMBER 6**

### 1991

### **General Papers**

- M. Zehetbauer, V. Gröger and B. R. Watts
- F. L. A. Machado, F. C. Montenegro, S. M. Rezende, E. Montarroyos,
- L. J. Azevedo and W. G. ClarkV. B. Campos, M. H. Degani and O. Hipólito

# 461 A salute to Stig Lundqvist

- 465 Deviations from Matthiessen's rule in copper containing dislocations
- 469 Spin-glass behavior in the Al: Mn quasicrystalline alloys
- 473 Many-polaron interaction effects in GaAs-GaAlAs quantumwell-wires

# **Superconductors and Superconductivity**

- L. Tröger, D. Arvanitis, J. Röhler,
- B. Schliepe and K. Baberschke
- J. Horn, H. Börner, H. C. Semmelhack, B. Lippold, J. Herrmann, M. Wurlitzer, M. Krätzsch, H. Boshaka, F. Schloderich
- M. Krötzsch, U. Boehnke, F. Schlenkrich and Ch. Frenzel
- B. Lippold, J. Herrmann, U. C. Boehnke, H. Börner, J. Horn, H. C. Semmelhack and M. Wurlitzer
- Yang Li, Guohui Cao, Ruzhang Ma and Zhongxian Zhao
- L. S. Vaidhyanathan and G. Rangarajan

- 479 Anomaly of the oxygen local environment in  $YBa_2Cu_3O_7$  around  $T_c$
- 483 On the preparation of Y1Ba2Cu4O8
- 487 Investigations on BaPrO<sub>3</sub>
- 491 X-ray diffraction study of softening in lattice vibration in the high- $T_c$  phase of Bi-based superconductor
- 495 A magnetic study of the oxide superconductors of the type  $(Pr_xY_{1-x})Ba_2Cu_3O_{7-y}$ ,  $O < x \le 1.0$

· ·	01. 75, 14	US. 1-12 COLLEGES
Y. Koike, T. Okubo, A. Fujiwara, T. Noji and Y. Saito	501	Trial of intercalation of Br and Li into ${\rm Bi}_2{\rm Sr}_2{\rm Ca}_{n-1}{\rm Cu}_n{\rm O}_{2n+4}$ $(n=1,2,3)$
A. W. Webb, K. H. Kim and C. Bouldin	507	The valence of copper in LaCuO <sub>3</sub> : an X-ray absorption study
General Papers (contd)		
A. Goldmann, W. Altmann and V. Dose	511	Experimental widths of excited electron states in metals
E. J. Mele	515	Spin analog method for collective modes of the Hubbard model
S. R. Dhariwal and B. M. Deoraj	521	Theory of dispersive relaxation in amorphous semiconductors
S. Schmitz and S. Ewert	525	Electron tunneling experiments on amorphous $Tl_xTe_{1-x}$ films
R. Lenk	531	Resistance resonance in coupled wells and quantum transport concepts
B. Šantić, N. Radić and U. V. Desnica	535	Calculation of the glow curve shape—application to the thermally stimulated currents (TSC)
K. M. K. Srivatsa, A. K. Mishra and S. D. Pandey	539	Optical absorption of $Co^{2+}$ ions doped in potassium Tutton salt single crystals
J. Sapriel, J. Chavignon, F. Alexandre, R. Azoulay, B. Sermage, K. Rao and M. Voos	543	Above bandgap luminescence of p-type GaAs epitaxial layers
AUGUST	VOLUM	E 79, NUMBER 7 1991
General Papers		
W. B. Euler and A. Szabo	547	7 X-ray powder diffraction on oligomeric and polymeric permethylpolyazine
D. Gottlieb and M. Lagos	551	General solution for the antiferromagnetic Heisenberg model with exchange anisotropy toward the Ising limit
J. L. P. Castineira, L. M. R. Scolfaro and J. R. Leite	557	7 Impurity levels of substitutional chalcogens-doped Ge
S. Selci, A. Cricenti, M. Righini, C. Petrillo, F. Sacchetti, F. Alexandre and G. Chiarotti		1 Evaluation of electron-phonon coupling of Al <sub>0,27</sub> Ga <sub>0,73</sub> As/GaAs quantum wells by normal incidence reflectance
Superconductors and Superconductivity G. G. Chepurko, I. V. Paukov,	560	9 Spectral studies of magnetic cuprates R <sub>2</sub> Cu <sub>2</sub> O <sub>5</sub> (R = Tb, Er,
M. N. Popova and Ja. Zoubkova	50.	Tm, Lu, Y)
D. Abukay, H. Nakano and L. Rinderer	57:	3 Hysteretic behaviour of the transport critical current and the flux-flow voltage in the bulk and the thin-film samples of bi-system
R. Akis and J. P. Carbotte	57	7 Strong coupling effects on the low frequency conductivity of superconductors

## Vol. 79, Nos. 1-12 Contents

x '	/ol. 79, N	os. 1-12 Contents
J. E. Eldridge, K. Kornelsen, Hau. H. Wang, J. M. Williams, A. V. Strieby Crouch and D. M. Watkins	583	Infrared optical properties of the 12 K organic superconductor $\kappa$ -(BEDT-TTF) $_2$ Cu[N(CN) $_2$ ]Br
K. P. Rajeev, G. V. Shivashankar and A. K. Raychaudhuri	591	$Low-temperature\ electronic\ properties\ of\ a\ normal\ conducting\ perovskite\ oxide\ (LaNiO_3)$
A. Ślebarski, A. Chelkowski and M. Niewiara	597	Superconductivity in lead-containing Y-Ba-Cu-O compounds
A. Mumtaz, H. Athar, S. K. Hasanain and J. A. Khan	601	Flux pinning in intergrain junctions—a magnetization rotation study
T. Krekels, G. Van Tendeloo, S. Amelinckx, J. Karpinski, E. Kaldis and S. Rusiecki	607	Structural considerations on 1-2-3 polytypoids
R. Cloots, A. Rulmont, P. A. Godelaine, C. Hannay, H. W. Vanderschueren and M. Ausloos	615	Sulphur substitution for oxygen in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> ceramics
General Papers (contd)		
ZX. Shen, R. S. List, D. S. Dessau, A. J. Arko, R. Barttlet, O. Jepsen, B. O. Wells and F. Parmigiani	623	Angle resolved photoemission of NiO(001)
M. N. Vijayashree and S. V. Subramanya	m 629	Low temperature properties of 3,4,9,10-perylenetetracar-boxylic dianhydride film
G. D. Maksimović, Z. S. Popović and F. R. Vukajlović	631	Magnetic properties of hexagonal-close-packed Cr
AUGUST	VOLUM	E 79, NUMBER 8 1991
General Papers		
N. F. Uvarov, E. F. Hairetdinov, J. M. Reau and P. Hagenmuller	635	Determination of charge carriers parameters of the $Pb_{1-x}Bi_xO_{x/2}F_2$ solid solution
A. Mosser, M. A. Romeo, J. C. Parlebas K. Okada and A. Kotani	, 641	Photoemission on 2p core levels of copper: an experimental and theoretical investigation of the reduction of copper monoxide
D. Stoeffler and H. Dreyssé	645	Strong or weak ferromagnetism in transition metals
Ming-C. Cheng and E. E. Kunhardt	651	Monte Carlo investigation of acoustic, intervalley and intravalley deformation potentials for GaAs
W. Schülke, KJ. Gabriel, A. Berthold a H. Schulte-Schrepping	and 657	Interlayer states of LiC <sub>6</sub> investigated by inelastic X-ray scattering spectroscopy (IXSS) using Li-core excitation
W. Schülke, A. Berthold, H. Schulte-Schrepping, KJ. Gabriel, V. Thommes-Geiser and HJ. Güntherod		Band structure induced changes of the dielectric response upon potassium intercalation in graphite studied by inelastic X-ray scattering

# Superconductors and Superconductivity

R. Rajput, Y. S. Reddy, D. P. Singh, K. D. Kundra and R. G. Sharma

667 110 K phase and oxygen balance in BSCCO system

J. Humlíček, J. Kircher, HU. Habermeier, M. Cardona, Y. Fang, U. Welp, K. Vanderwoort and D. Crabtree	673	Free-carrier optical response of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub>
M. Licheron, N. Lissart and F. Gervais	677	Electron paramagnetic resonance of $BaPbO_3,\ Ba_4Pb_3O_{10},\ Ba_2PbO_4$ and bismuth-substituted compounds doped with $Gd^{3+}$
General Papers (contd)		
W. Dickenscheid, R. Birringer, H. Gleiter, O. Kanert, B. Michel and B. Günther	683	Investigation of self-diffusion in nanocrystalline copper by NMR
K. C. Nandi, D. Mukherjee, A. K. Biswas and H. N. Acharya	687	Characterization of hydrogenated amorphous silicon films obtained from rice husk
R. G. Mani, L. Ghenim and J. B. Choi	693	Weak localization in the narrow gap bulk semiconductors $Hg_{1-x}Cd_xTe$ and $InSb$
A. Kumar, M. Manzar Malik, M. Zulfequar, A. Kumar and M. Husain	699	Electrical conductivity and thermo-electric power in $Se_{80-x}Te_{20}In_x$
J. A. Holyst and H. Benner	703	Effect of transverse spin-waves on the density of soliton pairs in TMMC below $T_N$
	i	Corrigendum
	111	Author Index Nos 1–8
SEPTEMBER V		
SEPTEMBER V  General Papers  N. N. Kolpakova, A. Pietraszko, S. Waplak and L. Szczepańska	OLUM	
General Papers N. N. Kolpakova, A. Pietraszko, S. Waplak	OLUM	E 79, NUMBER 9 199  Isostructural phase transition in the cubic oxide pyrochlore
General Papers N. N. Kolpakova, A. Pietraszko, S. Waplak and L. Szczepańska	707	E 79, NUMBER 9 199  Isostructural phase transition in the cubic oxide pyrochlore Cd <sub>2</sub> Nb <sub>2</sub> O <sub>7</sub>
General Papers N. N. Kolpakova, A. Pietraszko, S. Waplak and L. Szczepańska  Superconductors and Superconductivity V. V. Srinivasu, B. Thomas, N. Y. Vasanthacharya, M. S. Hegde	707 713	Isostructural phase transition in the cubic oxide pyrochlore $Cd_2Nb_2O_7$ Critical current density measurements of $YBa_2Cu_3O_{7-x}$ thi
General Papers N. N. Kolpakova, A. Pietraszko, S. Waplak and L. Szczepańska  Superconductors and Superconductivity V. V. Srinivasu, B. Thomas, N. Y. Vasanthacharya, M. S. Hegde and S. V. Bhat	707 713 717	Isostructural phase transition in the cubic oxide pyrochlore Cd <sub>2</sub> Nb <sub>2</sub> O <sub>7</sub> Critical current density measurements of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> thi films by non-resonant r.f. absorption method  The Hall effect anomaly in single phase Bi based ceramics
General Papers N. N. Kolpakova, A. Pietraszko, S. Waplak and L. Szczepańska  Superconductors and Superconductivity V. V. Srinivasu, B. Thomas, N. Y. Vasanthacharya, M. S. Hegde and S. V. Bhat P. Vašek, I. Janeček and V. Plecháček D. Nguyen Manh, D. Mayou and	707 713 717 723	Isostructural phase transition in the cubic oxide pyrochlore Cd <sub>2</sub> Nb <sub>2</sub> O <sub>7</sub> Critical current density measurements of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> this films by non-resonant r.f. absorption method  The Hall effect anomaly in single phase Bi based ceramics Electronic structure and metal-semiconductor transition is

Y. Wu and A. Stesmans

741 Electron spin resonance observation of structural modifications in amorphous silicon during annealing at subcrystallization temperatures

All Vol.		
H. Cruz, A. Hernandez-Cabrera and A. Muñoz		Quantum magnetotunneling time of electrons in $Ga_{1-x}Al_xAs$ - $GaAs$ superlattices
T. Ikehara and T. Itoh	755	Picosecond dynamics of hot biexcitons in CuCl under weak excitation regime
S. Gangopadhyay, S. Modak, B. C. Khanra and J. C. Bertolini	759	Segregation behaviour in $Pt_xNi_{1-x}(110)$ and $(111)$ surfaces
S. Hayashi, K.Kozaru and K. Yamamoto	763	Enhancement of photoelectric conversion efficiency by surface plasmon excitation: a test with an organic solar cell
M. R. A. Shegelski and D. J. W. Geldart	769	Theory of freezing temperatures of metallic spin glasses
C. F. Lo and R. Sollie	775	Mass dependence of ground-state properties of Wannier exciton in a quantum dot
I. B. Vendik	779	Two-mode model of charge-density-wave dynamics in quasi- one-dimensional conductors
SEPTEMBER VC	LUME	79, NUMBER 10 1991
General Papers		
Bo-Ping Hu and Gui-Chuan Liu	785	Magnetic properties of $R_2$ Fe <sub>17</sub> C <sub>x</sub> compounds ( $R = Y$ , Sm and Er, $x \sim 2$ )
Li Zhiqiang, Luo Helie, Lai Wuyan, Zeng Zhi and Zheng Qingqi	791	Electronic structure and magnetic properties of MnBi(Al,Nd)
J-Y. Veuillen, S. Kennou and T. A. Nguyen Tan	795	Formation and electronic structure of terbium silicide epitaxially grown on $\mathrm{Si}(111)$
T. Drüsedau, B. Schröder and H. Oechsner	799	Effective nitrogen doping of $a$ -Ge:H films prepared by DC-magnetron sputtering
M. Greaney, G. Huan, K. V. Ramanujachary, Z. Teweldemedhin and M. Greenblatt	803	Antiferro-to-ferromagnetic transition in metallic $TlCo_2S_xSe_{2-x}(0 \le x \le 2.0)$ with the $ThCr_2Si_2$ type structure
G. Kriza, Y. Kim, A. Beleznay and G. Mihály	811	Dielectric excitations of the pinned charge- and spin-density wave
K. V. Paulose, J. Koshy and A. D. Damodaran	815	Enhanced oxygen absorption in SnO $_2$ added YBa $_2\text{Cu}_3\text{O}_{7-\delta}$
J. T. Devreese and F. Brosens	819	Extension of the Feynman inequality for path-integrals to a non-zero magnetic field
C. M. Lepienski, J. A. Giacometti and	825	LIPP study of a glass sample previously submitted to a DC potential

### Superconductors and Superconductivity

R. Chandra, A. K. Gupta and V. S. Tomar

831 Sputter deposition of oriented Y-Ba-Cu-O thin films and study of grain boundary Josephson junctions

E. J. Nicol and J. P. Carbotte

835 Superconducting state optical conductivity of Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>8</sub> due to a bosonic mechanism

v	ol. 79, No	s. 1-12 Contents xiii				
G. Balestrino, V. Foglietti, M. Marinelli, E. Milani, A. Paoletti and P. Paroli		Transport properties of epitaxial BSCCO films grown on untwinned NdGaO <sub>3</sub> substrates				
5. D. Savransky	843	Local pairs superconductivity in glassy and crystalline As <sub>2</sub> Te <sub>3</sub>				
M. O. Selme and P. Pecheur	847	Tight-binding calculation of the effect of iron, cobalt and nickel impurities in $YBa_2Cu_3O_7$				
P. Guptasarma, V. R. Palkar, M. S. Multani, R. Vijayaraghavan, S. T. Bendre and S. B. Ogale	851	Epitaxial thin films of YBa <sub>2</sub> Cu <sub>4</sub> O <sub>8</sub> superconductor deposited by laser ablation of solution derived complex targets				
S. K. Agarwal, R. Suryanarayanan, D. Gorochov, V. N. Moorthy and A. V. Narlikar	857	Superconductivity and possible carrier localization in $YBa_{2}Cu_{3-x}Zn_{x}O_{7-y}$				
S. A. Sergeenkov	863	On field-induced irreversibility line crossover in deoxygenated weak-links-containing superconductors				
K. Osuch	867	On the low-temperature magnetic ordering in $ErBa_2Cu_3O_7$				
General Papers (contd)						
C. Julien, J. Ruvalds, A. Virosztek and O. Gorochov	875	Fermi liquid reflectivity of TiS <sub>2</sub>				
L. B. Litinsky	879	The pseudoinverse matrix and the methods of band calculation				
	i	Corrigendum				
SEPTEMBER	VOLUMI	E 79, NUMBER 11 1991				
General Papers						
T. Yamashiro, J. Takahara, Y. Takagaki, K. Gamo, S. Namba, S. Takaoka and K. Murase	885	Commensurate classical orbits on triangular lattices of anti- dots				
S. Marcinkevičius, G. Ambrazevičius, T. Lideikis and K. Naudžius	889	Band offset determination from conduction band filling in InGaAs/GaAs quantum wells				
R. Bradshaw and R. J. Sladek	893	3 Photo-ultrasonic effects in oxygen-doped n-GaAs at low temperatures				
M. Horbach	89	7 Effect of weak time-dependence of disorder on localization				
J. M. Léger and H. Aloualiti	90	1 X-ray study of anthracene under high pressure				
K. Inoue, O. Matsuda and K. Murase	90	5 Raman spectra of tetrahedral vibrations in crystalling germanium dichalcogenides, GeS <sub>2</sub> and GeSe <sub>2</sub> , in high and low temperature forms				
J. M. Calleja, A. R. Goñi, B. S. Dennis J. S. Weiner, A. Pinczuk, S. Schmitt-Rin L. N. Pfeiffer, K. W. West, J. F. Müller and A. E. Ruckenstein		Large optical singularities of the one-dimensional electron gas in semiconductor quantum wires				

917 On magnetism of quantum "dots" and "channels"

V. A. Grazhulis

# Vol. 79, Nos. 1-12 Contents

A.	Be	ensaid,	G.	Pat	rat,	M.	Brunel,
F.	de	Berger	vin	and	R.	Héi	rino

923 Characterisation of porous silicon layers by grazing-incidence X-ray fluorescence and diffraction

Superconductors and Superconductivity		
E. V. Abel', V. S. Bagaev, D. N. Basov, O. V. Dolgov, A. F. Plotnikov, A. G. Poiarkov and W. Sadovsky	931	Infrared spectroscopy of $Nd_{2-y}Ce_yCuO_4$ ( $y = 0-0.2$ ) single crystals
D. Sen, S. K. Ghatak, K. L. Chopra, G. Markendeyaulu and D. Bhattacharya	935	Electromagnetic response of superconducting YBaCuO-Ag composite in the r.f. region
A. A. Zakhidov, A. Ugawa, K. Imaeda, K. Yakushi, H. Inokuchi, K. Kikuchi, I. Ikemoto, S. Suzuki and Y. Achiba	939	Evolution of superconductivity of $K_x C_{60}$ upon K-doping: microwave low-field signal and ESR study
S. Seki	947	Shielding effect of the quasi-2D supercurrent on the photon-mediated spin-spin interaction
S. Seki	951	In-plane anisotropy-induced reduction of the effective Coulomb repulsion in a Cu–O based superconductor
R. Dagys, GJ. Babonas, G. Pukinskas and L. Leonyuk	955	Optical properties of $Bi_2Sr_2CaCu_2O_{8+\delta}$ -type compounds
D. López, R. Decca and F. de la Cruz	959	Topological pinning and flux flow in ceramic superconductors
S. Wermbter and L. Tewordt	963	Theory of nuclear relaxation rate, structure factor for neutron scattering, and phonon thermal conductivity for high- $T_{\rm c}$ superconductors
D. Castello, M. Jaime and M. Núñez Regueiro	967	Thermal conductivity of high temperature superconductor $\ensuremath{TIBaCaCuO}$
Xin-Fei, D. F. Lu, G. F. Sun, K. W. Wong, P. C. W. Fung and H. Yang	971	The superconducting 112 oxides
HO. Feldhütter, A. Šimunek and G. Wiech	977	Polarized X-ray O K- and Cu L-emission bands of $YBa_2Cu_3O_6$ and $YBa_2Cu_3O_{7-\delta}$

General	Danore	(contd)	Ŀ
CACHEL SH	Faucts	COHEG	P

- J. Y. Fang, S. J. Xiao, Z. H. Lu, Y. Wei, Z. M. Sun and P. Stroeve
- E. Tamura and R. Feder
- Lei Qingquan, Fan Yong and Shan Shufa
- Ben-yuan Gu and Chong-ru Huo

Xiao Dingquan, Zhu Jianguo, Zhao Shipin, Wang Xiu, Zhang Wen, Liu Guoqin and Xu Guanfeng

- 985 Structural and optical characterization of Langmuir-Blodgett films with alternating bilayers of hemicyanine dye and cadmium stearate
- 989 Spin-polarized normal photoemission from non-magnetic (111)-surfaces by p-polarized light
- 995 Effect of temperature and high pressure on conductive behaviour of polyacene quinone radical polymers
- 999 Analytical variational expressions for calculation of binding energies of the donor states in quantum wells
- 1005 Photostriction effect of doped LiNbO3 single crystals

# Vol. 79, Nos. 1-12 Contents

IV

S. Goettig

1009 Undamped collective excitations in high-temperature electron plasma

M. Załużny

1013 Bound-free intraband absorption line shape in quantum-well structures

Y. Nishio, K. Kajita and W. Sasaki

1017 Electronic states near the metal-insulator transition in neutron irradiated Si: P

J. Blinowski, P. Kacman and H. Przybylińska

1021 p-d Interaction in A<sup>II</sup>B<sup>VI</sup> diluted magnetic semiconductors

i Calendar of Solid State Events

1 Calendar of Solid State Event

### **SEPTEMBER**

# **VOLUME 79, NUMBER 12**

1991

### **General Papers**

- Z. Henkie, P. Wiśniewski, R. Fabrowski
   and R. Maślanka
   Dependence of ordering temperature on pressure, carrier density and U-U distance in uranium pnictides; pressure and Hall effects examinations of UP<sub>2</sub> and USb<sub>2</sub>
- Y. Ohmura 1029 Mechanism of piezoresistance in p-type Ge
- I. Gorczyca, N. E. Christensen, P. Perlin, 1033 High pressure phase transition in aluminium nitride I. Grzegory, J. Jun and M. Bockowski
- V. G. Golubev and W. Prettl 1035 FIR Photoconductivity at filamentary current flow in n-GaAs in a magnetic field
- N. Miura, H. Yokoi, J. Kono and S. Sasaki 1039 High field cyclotron resonance and the electron effective masses in AlAs
- A. J. Millis and S. N. Coppersmith 1043 Nonconvergence of the t/U expansion in the metallic phase of the Hubbard model

### Superconductors and Superconductivity

- T. Koyama and M. Tachiki 1049
- Xianhui Bu, A. Frost-Jensen, R. Allendoerfer, P. Coppens, B. Lederle and M. J. Naughton
- O. Milat, G. Van Tendeloo, S. Amelinckx, T. G. N. Babu and C. Greaves
- V. L. Matukhin, I. A. Safin, V. N. Anashkin, O. V. Zharikov and Yu. A. Ossipyan

- 1049 Spiral vortex in anisotropic superconductors
- 1053 Structure and properties of a new κ-phase organic metal: (BEDT-TTF)<sub>2</sub>Cu<sub>2</sub>(CN)<sub>3</sub>
- 1059 On the origin of the modulated structure in  $Ca_{0.85}CuO_2$ : an electron microscopy study
- 1063 63Cu NQR in superconducting YBa2Cu3O6.1Ix

# General Papers (contd)

- K. H. Youm and Sung-Ik Lee
- 1069 a.c. Conductivity and dielectric constant in a two-dimensional Swiss cheese percolation system

M. Janßen

1073 Conductance coefficients for multi-probe conductors

xvi

E. Burzo and P. Lucaci

Y. Ohno

Vol. 79, Nos. 1-12 Contents

1077 Magnetic properties of  $U_xGd_{1-x}Al_2$  and  $U_xDy_{1-x}Al_2$  compounds

1081 Interlayer interaction in misfit layer compounds MTS $_3$  (M = Sn, Pb, La; T = Ti, Nb)

1085 Author Index Nos 1-12

# **AUTHOR INDEX**

Volume 79, Nos 1-12

Abel', E. V. (11) 931 Abukay, D. (7) 573 Acharya, H. N. (8) 687 Achete, C. (5) 395 (10) 825 Achiba, Y. (11) 939 Achilleos, C. A. (3) 209 Acquarone, M. (4) 343 Agarwal, S. K. (10) 857 Akis, R. (7) 577 Al Khoury, E. (4) 307 Alexandre, F. (6) 543 (7) 561 Allendoerfer, R. (12) 1053 Allred, D. D. (3) 205 Aloualiti, H. (11) 901 Altmann, W. (6) 511 Amaya, M. (4) 371 Ambrazevicius, G. (11) 889 Amelinckx, S. (7) 607 (12) 1059 Amoretti, G. (2) 197 Anashkin, V. N. (12) 1063 Andraka, B. (1) 57 Andreani, L. C. (1) 17 Anzai, H. (3) 265 Araki, H. (5) 443 Arberg, P. N. (2) 125 Arko, A. J. (7) 623 Aron, Ch. (3) 217 Arvanitis, D. (6) 479 Asayama, K. (1) 51 Aslanyan, H. A. (4) 287 Athar, H. (7) 601 Auric, P. (3) 217 Ausloos, M. (7) 615 Avakian, R. H. (4) 287 Avetisyan, A. E. (4) 287 Azevedo, L. J. (6) 469 Azoulay, R. (6) 543

Baberschke, K. (6) 479 Babonas, G.-J. (11) 955 Babu, T. G. N. (4) 375 (12) 1059 Bagaev, V. S. (11) 931 Bagraev, N. T. (2) 109 Balaev, A. D. (4) 317 Baldacchini, G. (3) 201 Balestrino, G. (10) 839 Banville, M. (4) 307 Barttlet, R. (7) 623 Basov, D. N. (11) 931 Beauvais, J. (5) 435 Beck, H. (1) 17 Beleznay, A. (10) 811 Ben-yuan Gu (11) 999 Bendre, S. T. (10) 851 Benner, H. (8) 703 Bensaid, A. (11) 923 Berg, A. (1) 93 Berry, F. J. (4) 375 Berthold, A. (8) 657 (8) 661 Bertolini, J. C. (9) 759 Bertuccio, G. (4) 379 Bhat, S. V. (9) 713 Bhattacharya, D. (11) 935 Birringer, R. (8) 683 Biswas, A. K. (8) 687 Blaha, P. (2) 121 Blaise, A. (2) 197 Blinowski, J. (11) 1021 Bo-Ping Hu (10) 785 Bockowski, M. (12) 1033 Boehnke, U. (6) 483 Boonpikum, I. (5) 417 Börner, H. (6) 483 (6) 487 Bote, P. R. (1) 5 Bouhki, M. (5) 389 Bouldin, C. (6) 507 Boureau, G. (4) 299 Boyakhchyan, Ye. M. (4) 287 Bradshaw, R. (11) 893 Braicovich, L. P. (1) 75 (4) 379 Brantervik, K. (1) 93 Bredikhin, V. V. (3) 227 Brinker, C. J. (2) 137 Brosens, F. (10) 819 Brunel, M. (11) 923 Bruson, A. (5) 389 Burnside, S. D. (3) 241 Burzo, E. (12) 1077

Caciuffo, R. (2) 197 Calleja, J. M. (11) 911 Campbell, A. M. (1) 43 Campos, V. B. (6) 473 Cappellini, G. (2) 185 Carbotte, J. P. (7) 577 (10) 835 Cardona, M. (2) 131 (3) 223 (8) 673 Carlson, K. D. (1) 57 Cassino, F. S. L. (1) 89 Castello, D. (11) 967 Castineira, J. L. P. (7) 557 Chakravarti, A. (5) 421 Chalmers, S. A. (3) 223 Chandra, R. (10) 831 Chang-qing Xu, (3) 245 (3) 249 Chanussot, G. (1) 97 Chao, S. S. (3) 205 Chavignon, J. (6) 543 Chelkowski, A. (7) 597 Chen, X. J. (5) 457 Chepurko, G. G. (7) 569 Chiang, C. (5) 413 Chiarotti, G. (7) 561 Chittaranjan, C. M. (1) 69 Choi, J. B. (8) 693 Chong-ru Huo (11) 999 Chopra, K. K. (4) 289 Chopra, K. L. (11) 935 Christensen, N. E. (12) 1033 Chui, S. T. (4) 387 Ciaramella, E. (3) 201 Ciccacci, F. (4) 379 Clark, R. A. (4) 337 Clark, W. G. (6) 469 Clinard, F. W. (4) 295 Cloots, R. (7) 615 Coluzzi, R. (3) 201 Coppens, P. (12) 1053 Coppersmith, S. N. (12) 1043 Crabtree, D. (8) 673 Cricenti, A. (7) 561 Crouch, A. V. S. (1) 57 Cruz, H. (9) 749 Cyrot-Lackmann, F. (9) 723

Da Cunha Lima, I. C. (5) 431 Da Silva Carrico, A. (1) 25 Dagys, R. (11) 955 Dallakyan, K. R. (4) 287 Damodaran, A. D. (10) 815 Danagulyan, S. S. (4) 287 Daou, J. N. (4) 383 de Bergevin, F. (11) 923

de la Cruz, F. (11) 959 De Michelis, B. (1) 75 Decca, R. (11) 959 Dederichs, P. H. (1) 31 Degani, M. H. (6) 473 Del Sole, R. (2) 179 Demazeau, G. (1) 1 Dennis, B. S. (11) 911 Deoraj, B. M. (6) 521 Desnica, U. V. (6) 535 Dessau, D. S. (7) 623 Devreese, J. T. (10 819 Dhariwal, S. R. (6) 521 uDickenscheid, W. (8) 683 Dionisio, P. H. (5) 395 Dolgov, O. V. (11) 931 Dose, V. (6) 511 Dreyssé, H. (8) 645 Drittler, B. (1) 31 Drüsedau, T. (10) 799 Dyakin, V. V. (1) 39

Ebert, H. (2) 121
Edgar, A. (4) 355
Edwards, P. P. (1) 43 (3) 241
Eggenhoffner, R. (1) 75
Elbakyan, G. M. (4) 287
Eldridge, J. E. (7) 583
Elschner, B. (1) 61
Elschner, S. (1) 61
Emmel, P. D. (5) 431
Endo, S. (1) 51
Esfarjani, K. (4) 387
Euler, W. B. (7) 547
Ewert, S. (6) 525

Fabrowski, R. (12) 1025
Fan Yong, (11) 995
Fang, J. Y. (11) 985
Fang, Y. (8) 673
Fasana, A. (1) 75
Feder, R. (11) 989
Feldhütter, H.-0. (11) 977
Foglietti, V. (10) 839
Fortin, E. (5) 435
Fortune, N. A. (3) 265
Fournier, J. M. (2) 197
Frenzel, Ch. (6) 483 (6) 487
Frolov, S. I. (1) 39
Frost-Jensen, A. (12) 1053
Fuchs, H. D. (3) 223
Fujita, T. (3) 259

Fujiwara, A. (6) 501 Fung, P. C. W. (11) 971

Gabriel, K.-J. (8) 657 (8) 661 Gamo, K. (11) 885 Gangopadhyay, S. (9) 759 Garibian, G. M. (4) 287 Gasparian, R. H. (4) 287 Geldart, D. J. W. (9) 769 George, T. F. (5) 399 Gervais, F. (8) 677 Ghatak, S. K. (11) 935 Ghenim, L. (8) 693 Giacometti, J. A. (10) 825 Gleiter, H. (8) 683 Godelaine, P. A. (7) 615 Goettig, S. (11) 1009 Goldmann, A. (6) 511 Golubev, V. G. (12) 1035 Golubkov, A. V. (3) 227 Gonzalez-Hernández, J. (3) 205 Goñi, A. R. (11) 911 Gopinathan, K. P. (1) 69 Gorczyca, I. (12) 1033 Gorochov, O. (10) 857 (10) 875 Gossard, A. C. (3) 223 Gottlieb, D. (7) 551 Grazhulis, V. A. (11) 917 Greaney, M. (10) 803 Greaves, C. (4) 375 (12) 1059 Greenblatt, M. (10) 803 Grezegory, I. (12) 1033 Grishin, A. M. (9) 729 Gröger, V. (6) 461 Guéret, P. (5) 403 Gui-Chuan Liu (10) 785 Guilmin, P. (5) 389 Günther, B. (8) 683 Güntherodt, H.-J. (8) 661 Guo, G. Y. (2) 121 Guo-qing Zheng, (1) 51 Guohui Cao (6) 491 Gupta, A. K. (10) 831 Guptasarma, P. (10) 851 Guyot, H. (4) 307 Gwangseo Park, (3) 237

Habermeier, H.-U. (8) 673 Hackl, R. (5) 409 Hagenmuller, P. (8) 635 Hairetdinov, E. F. (8) 635 Hamawi, A. (1) 101

Gyurdzhyan, V. A. (4) 287

Hannay, C. (7) 615 Hao Che, (3) 273 Harada, Y. (5) 453 Hasanain, S. K. (7) 601 Hau, H. Wang (7) 583 Hayashi, S. (9) 763 Hedberg, B. (1) 93 Hegde, M. S. (9) 713 Henkie, Z. (12) 1025 Hérino, R. (11) 923 Hernandez-Cabrera, A. (9) 749 Herrmann, J. (6) 483 (6) 487 Himmrich, J. (5) 447 Hioki, T. (3) 255 Hipólito, O. (6) 473 Horai, K. (3) 259 Horbach, M. (11) 897 Horn, J. (6) 483 Holyst, J. A. (8) 703 Huan, G. (10) 803 Huang, Y. T. (5) 413 Humlícek, J. (8) 673 Hurng, W.-M. (5) 413 Husain, M. (8) 699 Hutchings, M. T. (2) 197

Iandelli, A. (1) 75 Ibarra, A. (4) 295 Iikawa, F. (2) 131 Ikehara, T. (9) 755 Ikemoto, I. (11) 939 Imaeda, K. (11) 939 Inokuchi, H. (11) 939 Inoue, K. (11) 905 Ishibashi, M. (3) 265 Ishida, K. (1) 51 Ishii, H. (5) 453 Ito, R. (3) 245 (3) 249 Itoh, T. (9) 755 Iwahashi, K. (3) 259 Iyer, S. S. (2) 161

Jaime, M. (11) 967
Jandl, S. (4) 307
Janecek, I. (9) 717
Janes, R. (3) 241
Janssen, M. (12) 1073
Jayarama Reddy, P. (3) 277
Jayavel, R. (5) 421
Jeandey, C. (3) 217
Jee, C. S. (1) 57
Jeon, B. K. (3) 237
Jespen, O. (7) 623

Ji-Hong Chen, (2) 175 Jia, Y. X. (4) 349 Jiménez de Castro, M. (4) 295 Johnson, J. D. (1) 43 Julien, C. (10) 875 Jun, J. (12) 1033

Kacman, P. (11) 1021 Kahrizi, M. (2) 167 Kajita, K. (11) 1017 Kaldis, E. (7) 607 Kan, L. (1) 61 Kanert, O. (8) 683 Karakozov, A. E. (4) 329 Karpinski, J. (7) 607 Kato, R. (4) 337 Kawaguchi, K. (1) 47 Kawaguchi, T. (2) 155 Kennou, S. (10) 795 Khan, J.A. (7) 601 Khanra, B. C. (9) 759 Khodja, M. (5) 427 Khvostantsev, L. G. (3) 227 Kiejin Lee (3) 237 Kikuchi, K. (11) 939 Kim, J. S (1) 57 Kim, K. H. (6) 507 Kim, Y. (10) 811 Kini, A. M. (1) 57 Kinoshita, N. (3) 265 Kircher, J. (8) 673 Kiselev, N. I. (4) 317 Kisogyan, H. S. (4) 287 Kitaoka, Y. (1) 51 Kitous, D. (4) 289 Klinger, M. I. (3) 231 Kobayashi, A. (4) 337 Kobayashi, H. (4) 337 Kodama, Y. (1) 51 Koike, Y. (2) 155 (6) 501 Kolpakova, N. N. (9) 707 Kondo, T. (3) 245 (3) 249 Kono, J. (12) 1039 Koo, H. S. (5) 413 Korenivski, V. N. (9) 729 Kornelsen, K. (7) 583 Koshy, J. (10) 815 Kossanyi, J. (1) 85 Kotani, A. (8) 641 Kotlinski, J. (2) 167 Kouyate, D. (1) 85 Koyama, T. (12) 1049

Kozaru, K. (9) 763 Krasko, G. L. (2) 113 Krekels, T. (7) 607 Krishnamurthy, N. (4) 363 Kriza, G. (10) 811 Krötzsch, M. (6) 483 Kruglik, A. I. (4) 317 Kulyuk, L. (5) 439 Kumar, A. (8) 699 Kumar, V. (1) 69 Kumata, K. (3) 245 (3) 249 Kundra, K. D. (8) 667 Kunhardt, E. E. (8) 651 Kuroda, H. (4) 337 Kuz'mina, M. A. (1) 39 Kyprianidis, I. M. (3) 209

Lagos, M. (7) 551 Lagos, R. E. (4) 323 Lai Wuyan (10) 791 Larroque, J. (2) 197 Lawangar-Pawar, R. D. (1) 5 (2) 105 Lederle, B. (1053 Lee, W. H. (5) 413 Léger, J. M. (11) 901 Lei Qingquan (11) 995 Leite, J. R. (7) 557 Lenahan, P. M. (2) 137 Lenk, R. (6) 531 Leonyuk, L. (11) 955 Lepienski, C. M. (10) 825 Li Zhiqiang, (10) 791 Li-Bin Lin, (3) 273 Licheron, M. (8) 677 Lideikis, T. (11) 889 Lima, R. S. (5) 395 Lippold, B. (6) 483 (6) 487 Lissart, N. (8) 677 List, R. S. (7) 623 Litinsky, L. B. (10) 879 Litovchenko, V. G. (1) 39 Liu Guoqin (11) 1005 Liu, J. Z. (4) 359 Liu, R. S. (1) 43 Lo, C. F. (9) 775 Lodder, A. (2) 143 (2) 147 López, D. (11) 959 Lu, D. F. (11) 971 Lu, Z. H. (11) 985 Lucaci, P. (12) 1077 Luo Helie, (10) 791 Lutz, H. D. (5) 447

Machado, F. L. A. (6) 469 Maksimov, E. G. (4) 329 Maksimovic, G. D. (7) 631 Mal'shukov, A. G. (1) 81 Mani, R. G. (8) 693 Manzar Malik, M. (8) 699 Marcinkevicius, S. (11) 889 Marcus, J. (4) 307 Margaritondo, G. (1) 13 Marinelli, M. (10) 839 Markendeyaulu, G. (11) 935 Marsi, M. (1) 13 Maslanka, R. (12) 1025 Masmoudi, O. (4) 299 Masuda, S. (5) 453 Matsuda, O. (11) 905 Matsuoka, R. (5) 443 Matukhin, V. L. (12) 1063 Mayou, D. (9) 723 McCarty, K. F. (4) 359 Mele, E. J. (6) 515 Michel, B. (8) 683 Mihály, G. (10) 811 Mikhailovsky, A. A. (4) 329 Milani, E. (10) 893 Milat, O. (12) 1059 Millis, A. J. (12) 1043 Ming-C. Cheng (8) 651 Mishra, A. K. (6) 539 Misra, S. K. (2) 167 Mitrovic, B. (2) 125 Miura, N. (3) 249 (12) 1039 Mkhitarian, A. Kh (4) 287 Mkrtchian, A. H. (4) 287 Mkrtchyan, A. R. (4) 287 Modak, S. (9) 759 Montarroyos, E. (6) 469 Montenegro, F. C. (6) 469 Montereali, R. M. (3) 201 Moorthy, V. N. (10) 857 Moran-Lopez, J. L. (2) 151 Moser, P. (4) 383 Moshkin, S. V. (1) 39 Mosser, A. (8) 641 Mostefa, M. (5) 427 Motliakh, A. P. (1) 39 Mowbray, D. J. (3) 223 Mukherjee, D. (8) 687 Müller, J. F. (11) 911 Müller, P. (5) 409 Multani, M. S. (10) 851 Mumtaz, A. (7) 601

Muñoz, A. (9) 749

Murase, K. (11) 885 (11) 905 Murata, K. (3) 265 Murugakoothan, P. (5) 421

Nagasawa, H. (4) 281 Naito, T. (4) 337 Nakamichi, S. (1) 51 Nakano, H. (7) 573 Namba, S. (11) 885 Nandgave, J. K. (1) 5 (2) 105 Nandi, K. C. (8) 687 Narlikar, A. V. (10) 857 Naudžius, K. (11) 889 Naughton, M J. (12) 1053 Nawrocki, J. P. (4) 303 Nguyen Manh, D. (9) 723 Nguyen Tan, T. A. (10) 795 Nicol, E. J. (10) 835 Niewiara, M. (7) 597 Niklasson, G. A. (1) 93 Nilsson, L. O. (1) 93 Nilsson, P. O. (2) 191 Nishida, A. (3) 259 Nishio, Y. (11) 1017 Nogueira Jr, E. (1) 25 Noji, T. (2) 155 (6) 501 Northrop, G. A. (2) 161 Nozières, J. P. (1) 21 Nunez Regueiro M. (11) 967

Oda, Y.(4) 371
Oechsner, H. (10) 799
Ogale, S. B. (10) 851
Ohkubo, M. (3) 255
Ohmura, Y. (12) 1029
Ohno, Y. (12) 1081
Ohta, H. (4) 281
Okada, K. (8) 641
Okubo, T. (6) 501
Olcese, G. L. (1) 75
Olson, G. B. (2) 113
Onoda, M. (4) 281
Osborn, R. (2) 197
Ossipyan, Yu. A. (12) 1063
Osuch, K. (10) 867

Palenzona, A. (1) 75 Palkar, V. R. (10) 851 Pandey, L. N. (5) 399 Pandey, S. D. (6) 539 Pansup Song, (3) 237 Paoletti, A. (10) 839 Parlebas, J. C. (8) 641 Parmigiani, F. (7) 623 Paroli, P. (10) 839 Patil, P. K. (1) 5 (2) 105 Patrat, G. (11) 923 Paukov, I. V. (7) 569 Paulose, K. V. (10) 815 Pawlik, D. A. (3) 205 Pecheur, P (10) 847 Perlin, P. (12) 1033 Petrakovskii, G.A. (4) 317 Petrillo, C. (7) 561 Pfeiffer, L. N. (11) 911 Piancastelli, M. N. (1) 13 Pietraszko, A. (9) 707 Pilla, O. (3) 201 Pinczuk, A. (11) 911 Pires, A. S. T. (1) 89 Plakhty, V. P. (4) 313 Plechávek, V. (9) 717 Plotnikov, A. F. (11) 931 Poiarkov, A. G. (11) 931 Polovtsev, I. S. (2) 109 Popova, M. N. (7) 569 Popovic, Z. S. (7) 631 Prettl, W. (12) 1035 Przybylińska (11) 1021 Pukinskas, G. (11) 955 Puppin, E. (1) 75 (4) 379

# Qi Wang (3) 205

Radic, N. (6) 535 Radousky, H. B. (4) 359 Rajeev, K. P. (7) 591 Rajput, R. (8) 667 Ramakrishnan, C (4) 363 Ramanujachary, K. V.u (10) 803 Ramasamy, P. (5) 421 Ranganathan, R. (5) 421 Rangarajan, G. (6) 491 Rao, K. (6) 543 Raychaudhuri, A. K. (5) 421 (7) 591 Reau, J. M. (8) 635 Rechenberg, H. R. (1) 21 Reddy, Y. S. (8) 667 Rémy, P. (4) 383 Rezende, S. M. (6) 469 Righini, M. (7) 561 Rigo, S. (2) 119 Rinderer, L. (7) 573 Róhler, J. (6) 479 Romeo, M. A. (8) 641 Ronfard-Haret, J.-C. (1) 85

Ruckenstein, A. E. (11) 911 Rulmont, A. (7) 615 Rusiecki, S. (7) 607 Ruvalds, J. (10) 875 Ruzhang Ma (6) 491

Sablina, K. A. (4) 317 Sacchetti, F. (7) 561 Sadovsky, W. (11) 931 Safin, I. A. (12) 1063 Sahu, D. (5) 399 Saito, Y. (2) 155 (6) 501 Sakakura, H. (3) 245 (3) 249 Sanchez, J. M. (2) 151 Sancrotti, M. (1) 75 (4) 379 Santic, B (6) 535 Sapriel, J. (6) 543 Sasaki, S. (12) 1039 Sasaki, T. (4) 371 Sasaki, W. (11) 1017 Satyanarayana Murty, Y. (3) 277 Savransky, S. D. (10) 843 Scacco, A. (3) 201 Schlenker, (4) 307 Schlenkrich, F. (6) 483 (6) 487 Schliepe, B. (6) 479 Schmitt-Rink, S. (11) 911 Schmitz, S. (6) 525 Schreiner, W. H.(5) 395 Schröder, B. (10) 799 Schülke, W. (8) 657 (8) 661 Schulte-Schrepping, H. (8) 657 (8) 661 Schwarz, K (2) 121 Scolfaro, L. M. R. (7) 557 Seki, S. (11) 947 (11) 951 Selci, S. (7) 561 Selme, M. O. (10) 847 Semmelhack, H. C. (6) 483 (6) 487 Sen, D. (11) 935 Sergeenkov, S. A. (10) 863 Sermage, B. (6) 543 Seung Pyung Choi, (3) 237 Shan Shufa (11) 995 Sharma, R. G. (8) 667 Shegelski, M. R. A. (9) 769 Shei, C. Y. (5) 413 Shelton, R. N. (4) 359 Shen, Z.-X (7) 623 Shibayama, H. (3) 259 Shiiyama, K. (3) 259 Shivashankar, G. V. (7) 591 Si-Chen Lee, (2) 175 Sidorov, V. A. (3) 227

Simunek, A. (11) 977 Singh, D. P. (8) 667 Singh, K. K. (3) 241 Sinha, K.P. (9) 735 Sladek, R. J. (11) 893 Slavcheva, G. (5) 439 Slebarski, A. (7) 597 Smirnov, I. A. (3) 227 Smith-Palmer, T. (2) 167 Sohma, M. (1) 47 Sollie, R. (9) 775 Somma, F. (3) 201 Srinivasu, V. V. (9) 713 Srinivasulu Naidu, B. (3) 277 Srivasta, K. M. K. (6) 539 Stathis, J. H. (2) 119 Staufer, T. (5) 409 Steinitz, M. O. (2) 167 Stesmans, A. (9) 741 Stewart, G. R. (1) 57 Stoeffler, D. (8) 645 Strieby Crouch, A. V. (7) 583 Stroeve, P. (11) 985 Subramanian, C. (5) 421 Subramanyam, S. V. (7) 629 Sumiyama, A. (4) 371 Sun, G. F. (11) 971 Sun, Z. M. (11) 985 Sung-Ik Lee (12) 1069 Suryanarayanan, R. (10) 857 Suzuki, S. (11) 939 Svensson, S. P. (2) 191 Szabo, A. (7) 547 Szczepanska, L. (9) 707 Szymanik, B. (4) 355

T.Yamashiro, (11) 885 Tachiki, M. (12) 1049 Tajima, H. (4) 337 Takagaki, Y. (11) 885 Takahara, J. (11) 885 Takahashi, Y. (3) 245 (3) 249 Takaoka, S. (11) 885 Takashima, M. (4) 371 Takeyama, S. (3) 249 Tamura, E. (11) 989 Tamura, M. (4) 337 Tanaka, R. (1) 51 Tanaka, Y. (4) 349 Tanatar, M. A. (1) 39 Taraskin, S. N. (3) 231 Taroyan, S. P. (4) 287 Taylor, A. D. (2) 197

Temmerman, W. M. (2) 121 Tetot, R. (4) 299 Teweldemedhin, Z. (10) 803 Tewordt, L. (11) 963 Tezlevan, V. E. (5) 435 Thomas, B. (9) 713 Thommes-Geiser (8) 661 Toigo, F. (5) 457 Tokumoto, K. (3) 265 Tomar, V. S. (10) 831 Tomellini, M. (2) 179 Trallero-Giner, C. (2) 131 Trimaille, I. (2) 119 Tröger, L. (6) 479 Tsiok, O. B (3) 227 Tsoukalas, I. A. (3) 209 Tsukada, M. (4) 349 Tsuzuki, T. (1) 9

Ugawa, A. (11) 939 Ul'yanov, A. N. (9) 729 Underhill, A. E. (4) 337 Unishi, T. (4) 371 Uthanna, S. (3) 277 Uvarov, N. F. (8) 635

Vaidhyanathan, L. S. (6) 491 Vajda, P. (4) 383 Van Tendeloo, G. (7) 607 (12) 1059 Vanderschueren, H. W. (7) 615 Vanderwoort, K. (8) 673 Vasanthacharya, N. Y. (9) 713 Vasek, P. (9) 717 Vasiliev, V. N. (4) 317 Vel, L. (1) 1 Velikanov, D. A. (4) 317 Vendik, I. B. (9) 779 Venkateswara Rao, C. R. (5) 421 Vescovo, E. (1) 75 (4) 379 Veuillen, J-Y. (10) 795 Vijayaraghavan, R. (10) 851 Vijayashree, M. N. (7) 629 Vila, R. (4) 295 Virosztek, A. (10) 875 Viswanathan, B. (1) 69 Voos, M. (6) 543 Vorotinov, A. M.(4) 317 Vukajlovic, F. R. (7) 631

Walldén, L. (1) 101 Wang Xiu, (11) 1005 Wang, H. H. (1) 57 Waplak, S. (9) 707 Warren, W. L. (2) 137
Watanabe, N. (2) 155
Watkins, D. M. (7) 583
Watts, B. R. (6) 465
Webb, A. W. (6) 507
Wei, Y. (11) 985
Weiner, J. S. (11) 911
Weinert, M. (1) 31
Wells, B. 0. (7) 623
Welp, U. (8) 673
Wermbter, S. (11) 963
West, K. W. (11) 911
Wiech, G. (11) 977
Williams, J. M. (1) 57 (7) 583
Wisniewski, P. (12) 1025

Williams, J. M. (1) 57 (7) Wisniewski, P. (12) 1025 Wolford, D. J. (2) 161 Wong, K. W. (11) 971 Wu, P. T. (5) 413 Wu, S. F. (5) 413 Wu, Y. (9) 741

Wurlitzer, M. (6) 483 (6) 487

Xianhui Bu (12) 1053 Xiao Dingquan, (11) 1005 Xiao, S. J. (11) 985 Xin Fei, (11) 971 Xin-Chuan Zeng (3) 273 Xu Guanfeng (11) 1005

Yakushi, K. (11) 939 Yamagami, H. (4) 349 Yamamoto, K. (9) 763 Yamashiro, T. (11) 885 Yanase, E. (1) 51 Yanchev, I. (5) 439 Yang Li (6) 491 Yang, H. (11) 971 Yang-Fang Chen, (2) 175 Yefanov, V. S. (1) 39 Yokoi, H. (12) 1039 Yoksan, S. (5) 417 Yoshino, K. (5) 443 Youm, K. H. (12) 1069 Young, V. Y. (4) 303 Yu Xia, (3) 273

Zakhidov, A. A. (11) 939
Zanoni, R. (1) 13
Zahuzny, M. (11) 1013
Ze-Nong Ding, (3) 273
Zehetbauer, M. (6) 461
Zeller, R. (1) 31
Zeng Zhi (10) 791
Zhang Wen (11) 1005
Zhao Shipin (11) 1005
Zharikov, O. V. (12) 1063
Zheng Qingqi (10) 791
Zhongxian Zhao (6) 491
Zhu jianguo (11) 1005
Zoubkova, Ja. (7) 569
Zulfequar, M. (8) 699

